REMARKS

The Written Opinion mailed July 24, 2001, has been received and reviewed. Claims 19, 21 through 23 and 25 through 34 are currently pending in the application. The final rejection of claims 19, 21 through 23 and 25 through 34 has been affirmed by the Board. Applicant has amended claims 19, 21 through 23, 25 through 32 and 34 and respectfully requests entry of the amendments in conjunction with the request for Continued Prosecution Application filed concurrently herewith.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on Japanese Patent Application 63-179537 to Kuroda et al. in view of U.S. Patent No. 5,323,060 to Fogal et al.

The Board sustained the rejection of independent claim 19 based on Kuroda in view of Fogal. The Board further sustained the rejection of claims 21 through 23 and 25 through 34 "because appellant has chosen to let these claims stand or fall with claim 19." (Opinion of Board, page 5). Applicant has amended claim 19 and respectfully requests reconsideration of the application as amended herein.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. **Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The obviousness rejections of claims 19, 21 through 23 and 25 through 34 are inappropriate with respect to the claims as presently amended because the references relied upon by the Examiner fail to teach or suggest all of the limitations of the presently claimed invention.

Independent claim 19, as amended herein, is directed to a method of fabricating a multi-die assembly. The method includes: providing a substrate including a plurality of conductors; attaching at least one active face-down base die to the substrate in electrical communication with at least some of the substrate conductors; securing the back side of at least one active face-up stack die to the at least one base die with *electrically conductive adhesive*; and *electrically grounding the at least one base die via said electrically conductive adhesive and said at least one stack die.*

Applicants submit that neither Kuroda, nor Fogal teach or suggest securing a face-up stack die to a face-down base die using electrically conductive adhesive. Further, Kuroda and Fogal fail to teach or suggest grounding the face-down base die via the electrically conductive adhesive and the at least one stack die. Therefore, Applicants submit that claim 19, as amended herein, is in condition for allowance and respectfully request reconsideration thereof.

Applicants further submit that claims 21 through 23 and 25 through 34 are in condition for allowance as being dependent from an allowable base claim as well as for the additional patentable subject matter introduced thereby.

It is noted that dependent claims 30-32 and 34 were finally rejected, prior to the Board's decision, as being obvious based on Japanese Patent 63-104343 to Kuranaga et al. and Japanese Patent 63-179637 to Kuroda et al. in view of U.S. Patent 5,323,060 to Fogal et al., and further in view of U.S. Patent 5,399,898 to Rostoker and U.S. Patent 5,422,435 to Takiar et al. Applicants submit that the additional references of Kuranaga, Rostoker and Takiar fail to teach or suggest securing a face-up stack die to a face-down base die using electrically conductive adhesive, nor do the additional references teach or suggest grounding the face-down base die via the electrically conductive adhesive and the at least one stack die.

Applicants, therefore, submit that claims 30 through 32 and 34 are not rendered obvious by Kuroda, Kuranaga, Fogal, Rostoker and Takiar, either considered separately or in combination.

CONCLUSION

Claims 1-18 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully Submitted,

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BBJ\csk:dfp
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VERSION SHOWING CHANGES MADE

IN THE CLAIMS

19. (Twice Amended) A method of fabricating a multi-die assembly, comprising:

providing a substrate including a plurality of conductors;

attaching at least one active face-down base die to said substrate in electrical communication with at least some of said plurality of conductors;

securing the back side of at least one active face-up stack die to said at least one base die with electrically conductive adhesive;

electrically connecting said at least one stack die to at least one of said conductors; and

electrically grounding said at least one base die via said electrically conductive adhesive and said at least one stack die.

[securing at least one discrete component to at least one of said stack die, said base die, and said substrate; and

electrically connecting said at least one discrete component to at least one of said stack die, said base die, and said substrate.]

21. (Twice Amended) The method of claim 19, further comprising:

securing at least one discrete component to at least one of said at least one stack die, said at least one base die, and said substrate;

electrically connecting said at least one discrete component to at least one of said stack die, said base die, and said substrate

extending a die-to-component bond wire between said at least one stack die and said at least one discrete component.

22. (Twice Amended) The method of claim 19, further comprising:

extending a component-to-substrate bond wire between said at least one discrete component and at least one of said plurality of substrate conductors.

23. (Twice Amended) The method of claim 19, further comprising:
securing [a second] at least another stack die to said assembly; and
electrically connecting said at least another [second] stack die and at least one of said plurality of substrate conductors.

25. (Amended) The method of claim 23, further comprising securing said [second] at least another stack die to said at least one stack die.

26. (Twice Amended) The method of claim 25, further comprising:
securing at least one discrete component to said at least one stack die; and
extending a die-to-component bond wire between said [second] at least another stack die and said at least one discrete component.

27. (Twice Amended) The method of claim 25, further comprising:
securing at least one discrete component to said at least one stack die; and
extending a component-to-substrate bond wire between said at least one discrete component and at least one of said plurality of substrate conductors.

28. (Twice Amended) The method of claim 25, further comprising:
securing at least one discrete component to said at least one base die; and
extending a die-to-component bond wire between said [second] at least another stack die and said at least one discrete component.

29. (Twice Amended) The method of claim 25, further comprising:
securing at least one discrete component to said at least one base die; and
extending a component-to-substrate bond wire between said at least one discrete component and at least one of said plurality of substrate conductors.

30. (Twice Amended) The method of claim 19, wherein the attaching ate least one active face-down base die includes attaching at least two active face-down base die [further comprising attaching a second active face-down base die] to said substrate and electrically coupling each of said at least two base die [in electrical communication] with at least one of said plurality of substrate conductors.

31. (Amended) The method of claim 30, further comprising bridging said at least one stack die between said at least two base die [and second base die].

32. (Amended) The method of claim 31, further comprising securing [a second] at least another stack die over said at least one stack die.

34. (Twice Amended) The method of claim 31, further comprising:
securing at least [one] another discrete component to said substrate; and
extending a die-to-component bond wire between said at least one stack die and said at least [one] another discrete component.